Patent

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Assignee: Intel Corporation
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS	:	Steve SCHNETZLER
SERIAL NO.	:	10/083,557
FILED	:	February 27, 2002
TITLE	:	SERVER PERSISTENCE USING A URL IDENTIFIER
GROUP ART UNIT	:	2144
EXAMINER	:	Greg C. BENGZON

M/S: APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

ATTENTION: Board of Patent Appeals and Interferences

APPEAL BRIEF

Dear Sir:

This brief is in furtherance of the Notice of Appeal, filed in this case on October 1, 2007.

1. REAL PARTY IN INTEREST

The real party in interest in this matter is Intel Corporation. (Recorded February 27, 2002, Reel/Frame 012662/0707).

2. RELATED APPEALS AND INTERFERENCES

An appeal brief was filed on June 19, 2006.

3. STATUS OF THE CLAIMS

Claims 1-21 are pending in the application. Claims 1-21 are rejected and on appeal. No claims are allowed, objected to, withdrawn, or cancelled.

4. STATUS OF AMENDMENTS

Appellant did not make any amendments to the claim subsequent to final rejection. The claims listed on page 1 of the Appendix attached to this Appeal Brief reflect the present status of the claims (including amendments entered after final rejection).

5. SUMMARY OF THE CLAIMED SUBJECT MATTER

The embodiment of claim 1 is generally directed to a method comprising: receiving a request for the data from a client computer (*see e.g.*, page 4, paragraph [0014] – Figure 2, 100); sending the request to a first server of a plurality of servers (*see e.g.*, page 4, paragraph [0015] – Figure 2, 110); receiving the data from the first server (*see e.g.*, page 5, paragraph [0017] – Figure 2, 140); and adding an identity of the first server to the data and forwarding the data to

the client computer (*see e.g.*, page 5, paragraph [0018] – Figure 2, 150).

The embodiment of claim 8 is generally directed to a load balancer comprising: a processor; and memory; wherein said processor is adapted to: receive a request for data from a client computer (*see e.g.*, page 4, paragraph [0014] – Figure 2, 100); send the request to a first server among a plurality of servers (*see e.g.*, page 4, paragraph [0015] – Figure 2, 110); receive the data from the first server (*see e.g.*, page 5, paragraph [0017] – Figure 2, 140); and add an identity of the first server to the data and forward the data to the client computer (*see e.g.*, page 5, paragraph [0018] – Figure 2, 150).

Claim 15 is directed to a computer readable medium having instructions stored thereon that, when executed by a processor, cause the processor, after receiving a request for data from a client computer, to: send the request to a first server among a plurality of servers (*see e.g.*, page 4, paragraph [0015] – Figure 2, 110); receive the data from the first server (*see e.g.*, page 5, paragraph [0017] – Figure 2, 140); and add an identity of the first server to the data and forward the data to the client computer (*see e.g.*, page 5, paragraph [0018] – Figure 2, 150).

Fig. 1 is a block diagram of a system in accordance with one embodiment of the present invention. Fig. 2 is a flow diagram of the steps performed by a load balancer in accordance with one embodiment of the present invention.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Are claims 1-21 rendered obvious under 35 U.S.C. §103(a) over O'Neil et al., U.S. Patent No. 6,128,279 ("O'Neil"), in view of Barrera et al., U.S. Patent No. 6,748,448 ("Barrera")?

B. Are claims 1-21 rendered obvious under 35 U.S.C. §103(a) over O'Neil in view of Bodwell et al., U.S. Patent No. 6,954,783 ("Bodwell")?

7. ARGUMENT

Appellant respectfully submits the cited references do not teach, suggest or describe at least "[a] method of accessing data from a plurality of servers comprising: … *adding an identity of the first server to the data and forwarding the data to the client computer*" (*e.g.*, as described in the embodiment of claim 1).

A. Claims 1-21 are not rendered obvious under over O'Neil in view of Barrera.

Appellant agrees with the Examiner's assessment that O'Neil does not describe adding an identity of the first server to the data and forwarding the data to the client computer. *See* Office Action dated 5/4/2007, page 3. The Examiner asserts Barrera describes receiving a request for network content and modifying the URL, such that the URL request resource file physical I/O address is preferably embedded in the client computer browser page URL link, citing column 4 lines 10-50, column 8 lines 50-65, and column 9 lines 1-10. *See* Office Action dated 5/4/2007, page 4.

Appellant respectfully disagrees; as shown below, describing *a physical I/O address of a resource file* is not the equivalent of *adding an identity of the first server* to the data and forwarding the data to the client computer as described in claimed embodiments of the present application (*e.g.*. as described in claim 1).

With regard to the cited section column 4, lines 10-50, the first portion of this section

merely describes using a URL addressing scheme for efficiently accessing resource files on a networked server system. *See* column 4, lines 10-25. As asserted by the Examiner, this section further describes: "The URL request resource file physical I/O address is preferably embedded in the client computer browser page URL link, pre-establishing a correspondence between the browser page element and the resource file." *See* column 4, lines 25-29. The cited section fails to describe at least *adding an identity of the first server* to the data and forwarding the data to the client computer. The last portion of the cited section describes:

> In the system embodiment of the present invention corresponding to this method embodiment, the data storage device controller is directly connected to the network and has a destination IP address, to allow accessing the requested resource file on the data storage device directly, *and to allow the transfer of the requested resource file*, between the data storage device and the client network access equipment, *to be directly performed by the data storage device controller. (emphasis added)*

This section of the Barrera reference does not describe *the use of a server* to perform the transfer of the requested file, much less the adding of an identity of a first server to a data request return as claimed in multiple embodiments.

An examination of the introductory section (column 8, lines 30-40) to the Examiner's cited section of column, lines 50-65 explains why. The cited section column 8, lines 50-65 describes some of the steps of the requesting and retrieval of data wherein "…a physical I/O address is included in the complete URL address" without any further explanation of the embedding process. *See* column 8, lines 40-44. However, the introductory section referred to above describes:

> In another preferred embodiment of the present invention, shown in FIG. 3, *the function of returning the resource file to the client 100 is directly performed by the data storage device controller 102, and a URL includes a physical I/O*

> *address of a resource file.* In this aspect of the invention the resource file is sent directly to the requesting client, *without use of a server 104.* For this purpose the data storage device controller 102 protocol, such as SCSI or IDE protocol is used and the data storage device controller 102 is directly connected, via connection 108 and LAN connection 112, to the internet 106, and has its own IP address. (*emphasis* added)

This introductory section verifies the retrieval of any requested file is performed by a data storage device controller, separate from any server. Barrera specifically teaches away from the use of a server. Therefore, it is clear that the embedded physical I/O address of a resource file does not include an identity of a server responsible for forwarding the requested data to the client computer (*e.g.*, as described in the embodiment of claim 1), because Barrera does not require the use of servers at all in its retrieval process.

The last cited section of Barrera (column 9, lines 1-10) merely confirms this conclusion. It restates: "In this preferred embodiment of the present invention, the host server 104 and the stack are bypassed. The data storage device controller 102 incorporates the Web network interface to interpret the request and return the requested resource file." *See* column 9, lines 5-9. Therefore, it is clear that Barrera and O'Neil fail to describe at least these limitations of the embodiment of claim 1.

Appellant maintains that the embedded address of Barrera is inadequate in other ways as well. As shown in multiple instances above, the embedded address of Barrera is a physical I/O address, otherwise known as a MAC address or ethernet address (*e.g.*, 00 0A 27 91 40 FC). A MAC is not the same as, for example, an IP identifying address. A MAC address is a hardware address used for interface with the network medium in the OSI network standard. Appellant submits a MAC address is not sufficient to describe an identity of a first server as specifically

recited in the embodiment of claim 1.

The Examiner also asserts that because column 8, lines 5-10 of Barrera describes that while responding to client requests, the IP address of a *device controller* is embedded in the URL request, that this is the equivalent of *adding an identity of the first server* to the data and forwarding the data to the client computer. Appellant disagrees. Column 8, lines 5-10 of Barrera state:

> In this preferred embodiment of the present invention *a URL address has the following content*, assuming contiguous storage of resource file blocks:
>
> http://.....*<IP Address or Hostname of Controller>*/<LUN#>/<StartBlock#>,<NumberOfBlocks>
>
> In the disclosed preferred embodiment, *the URL identifies a specific data storage device controller and its logical unit number,* a physical block start address of the resource file on the data storage device and a number of blocks used for the resource file, and thus step 6 of a conventional system is bypassed. *(emphasis added)*

Therefore, as described in the Barrera reference "a URL address has the following content": the *identity of a specific data storage device controller* and its logical unit number (italicized in the exemplary URL), a physical block start address of the resource file on the data storage device and a number of blocks used for the resource file.

Moreover, even if Appellant were to assume, only *arguendo*, that the identity of the controller and the server are the same, there is nothing in the Barrera reference that teaches "...adding an identity of the first server *to the data* and forwarding the data to the client computer", as described in embodiments of the present application. Column 7, line 25 to column 8, line 10 of Barrera (including the cited section column 8, line 5-10) is intended to describe the request and transfer of a resource file between computers. *See* column 7, lines 25-

26. This description includes the selection and subsequent of *sending* of a requested URL address. *See* column 7, lines 55-63. Therefore, the URL address cited by the Examiner is merely *sent* as an identifier to aid in the locating of the requested resource file stored on the "Web server host". *See* column 7, lines 64-67.

Therefore, Appellant submits that the cited URL address of Barrera is *sent* as part of an instruction request sent to the *host server* to *initiate the locating* of the requested file. Barrera does not describe at least including an URL address as part of a *retrieval* process to be sent to *the requesting* party. The Examiner further cites column 6, lines 20-30 of Barrera, which state:

> Each selectable item on +Web pages displayed on a Web site has an embedded URL address, with the physical I/O address of the corresponding Web page file located on its data storage device 20, preferably a SCSI device with a connection 21 to the server 14. Therefore, when a Web page is served by the Web server 14 to the client 10, *the client browser can send to the Web server 14 a request with a complete URL link to a selectable Web page, including its physical I/O address*. Thus, *the request* can be passed by the server 14 directly to the data storage device 20 controller, avoiding the file I/O layer. (*emphasis added)*

The cited section describes embedding a URL address with the physical I/O address. However, it also describes *a client browser sending a request* with a URL link. Such a request is passed on to the server 14 *as part of the request*. There is no mention of the sending of a URL address as part of a retrieval process to be sent to the requesting party in the cited section, and it definitely does not include a description of "*... adding an identity of the first server to the data* and forwarding the data *to the client computer*" as described in embodiments of the present application. In order to support a proper §103(a) rejection, the cited references must include a similar teaching, suggestion or description. For at least the above reasons, Appellant maintains the Barrera reference does not.

B. Claims 1-21 are not rendered obvious under 35 U.S.C. §103(a) over O'Neil in view of Bodwell.

As stated above, Appellant agrees with the Examiner's assessment that O'Neil does not describe adding an identity of the first server to the data and forwarding the data to the client computer. *See* Office Action dated 5/4/2007, page 6.

The Examiner asserts Bodwell describes the relevant limitations in that it describes adding an identity of a first server to data and forwarding the data to a client computer, and wherein the adding of the identity comprises revising the at least one URL to include a server identifier corresponding to the first server (citing column 4, line 60 – column 5, line 25). *See* Office Action dated 5/4/2007, page 7. Appellant disagrees.

The first paragraph of the cited section states:

> Because images/test.gif is relative to the base URL http://www.server.com, the link will not actually reference the base URL and only "images/test.gif" will appear in the content of the web page.

The first paragraph does not discuss adding an identity of a server to data and forwarding the date to a client computer. The second paragraph of the cited section states:

> In the case of absolute URLs, software program 5 will embed the name of target web server 30 in the file portion of the mediated URL, preceded by a special identifier. The special identifier is used so that if a user sends a command requesting the mediated URL, software program 5 will be able to locate the name of target web server 30. For example, the HTML for a link to an absolute URL <A HREF="http://www.utexas.edu"> UT </A> could become <A HREF="http://site1.server.com/company*www.utexas.edu"> UT</A>. In this case, requests for the target web server www.utexas.edu will be routed through a host "site1.server.com" at intermediate server 10. The host "path1.server.com" can be used to define a particular target web server 30 associated with web page 35. "company*" is the special indicator which allows software program 5 to locate the target server

> www.utexas.edu in the file name. Software program 5 can then forward user requests for target web server www.utexas.edu to that target web server. It should be noted that target web server www.utexas.edu (*e.g.* target web server 30 for this particular request) may be different than target web server 30 for the user's previous request.

The cited paragraph describes software program 5 embedding the name of a target web server in the file portion of a mediated URL. A special identifier aids software program 5 in locating the name of a target web server 35. The reference further describes utilizing the software program 5 of intermediate server 10 to forward *user requests* for the target web server 30 through intermediate server 10. Software program 5, and therefore the intermediate server 20, thereafter redirects to client requests of the web page 35 to the target web server 30.

In the cited example, the software program 5 embeds the name of the target server, but does not forward the requested file including the identity of a server *to a client computer* as described in embodiments of the present application (*e.g.*, claim 1). The embedding (of the target server's name and the special identifier) described in Bodwell is directed to communication between an intermediate server and a target server to achieve the end of routing all future requests of the relevant target server through the relevant intermediate server. It fails to describe at least adding an identity of a server to data *and forwarding the date to a client computer* altogether.

The third and final paragraph of the cited section states:

> Because absolute URLs are identified by http or https protocols, software program 5 can identify absolute URLs in the content of web page 35 by searching the content for "http://" or "https://". This provides an advantage over systems which search content for particular types of html tags, such as the A tag, in order to identify absolute URLs because the html tags are not always used to identify URLs embedded in JavaScript, Visual Basic or other scripts.

The last paragraph describes searching through a web page with regard to identifying entries such as tags. It does not discuss adding an identity of a server to data and forwarding the date to a client computer.

The Examiner also cites to column 3, lines 30-35 and column 4, lines 45-50 as disclosing the relevant limitations. *See* Office Action dated 5/4/2007, page 9-10. Column 4, lines 45-50 state: "Other embodiments can include such methods as mediating Cache-Control headers. At step 60, software program 5 can change links in the content of web page 35 to refer to intermediate server 10. This can be done for both absolute and relative URL links." The cited section discusses the ability of software program 5 to insert a link in web page 35 referring to an intermediate server. Column 3, lines 30-35 state: "Mediation of the content can be done according to the method described in conjunction with FIG. 2. Software program 5, after mediating the content, can then communicate the mediated content to the display window of web browser 20." This cited section merely describes communicated mediated content to web browser 20.

Appellant submits the Examiner's citations are inadequate. As argued above, claim 1 describes in detail an embodiment method wherein, among other things, 1) data is received from a first server, and 2) adding the identity of *the first server* (providing the data) to the data and forwarding the data to the client computer. Adding the identity of a first server that provides the data is not the same as adding the identity of an unrelated intermediate server. In order to support a proper rejection, the Bodwell reference must teach or suggest each and every limitation as claimed. As shown above, the Bodwell reference does not; any combination of

Bodwell, O'Neil, and Barrera does not either. Appellant submits the current rejection is lacking for at least the above reasons.

Therefore, since each and every element of claim 1 is not taught, suggested or described by the cited references, Appellant respectfully submits that the §103(a) rejections of claim 1 should be withdrawn. Appellant further submits independent claim 1 is allowable, and independent claims 8 and 15, including similar allowable limitations, are allowable as well. Claims 2-7, 9-14, and 16-21 depend from and further define the aforementioned allowable independent claims, and therefore are allowable as well.

CONCLUSION

Appellants therefore respectfully request that the Board of Patent Appeals and Interferences reverse the Examiner's decision rejecting claims 1 - 21 and direct the Examiner to pass the case to issue.

The Examiner is hereby authorized to charge the appeal brief fee of **$500.00** and any additional fees which may be necessary for consideration of this paper to Kenyon & Kenyon LLP Deposit Account No. **11-0600**.

Respectfully submitted,
KENYON & KENYON LLP

Date: February 1, 2008

By: /Sumit Bhattacharya/
Sumit Bhattacharya
(Reg. No. 51,469)
Attorneys for Intel Corporation

KENYON & KENYON LLP
333 West San Carlos St., Suite 600
San Jose, CA 95110
Telephone: (408) 975-7500
Facsimile: (408) 975-7501

APPENDIX

(Brief of Appellant Steve SCHNETZLER
U.S. Patent Application Serial No. 10/083,557)

8. CLAIMS ON APPEAL

1. A method comprising:

receiving a request for the data from a client computer;

sending the request to a first server of a plurality of servers;

receiving the data from the first server; and

adding an identity of the first server to the data and forwarding the data to the client computer.

2. The method of claim 1, further comprising:

determining whether the request includes a server identifier.

3. The method of claim 1, wherein the request is a Uniform Resource Locator (URL).

4. The method of claim 1, wherein the data is a HyperText Markup Language (HTML) page.

5. The method of claim 4, wherein the HTML page comprises at least one Uniform Resource Locator (URL), and the adding the identity of the first server comprises revising the at least one URL to include a server identifier that corresponds to the first server.

6. The method of claim 2, wherein the sending the request to the first server comprises a load balancing algorithm.

7. The method of claim 2, wherein the sending the request to the first server comprises sending the request to a server identified by the server identifier.

8. A load balancer comprising:

a processor; and

memory;

wherein said processor is adapted to:

receive a request for data from a client computer;

send the request to a first server among a plurality of servers;

receive the data from the first server; and

add an identity of the first server to the data and forward the data to the client computer.

9. The load balancer of claim 8, said processor further adapted to:

determine whether the request includes a server identifier.

10. The load balancer of claim 8, wherein the request is a Uniform Resource Locator (URL).

11. The load balancer of claim 8, wherein the data is a HyperText Markup Language (HTML) page.

12. The load balancer of claim 11, wherein the HTML page comprises at least one Uniform Resource Locator (URL), and the processor adds the identity of the first server by revising the at least one URL to include a server identifier that corresponds to the first server.

13. The load balancer of claim 9, wherein the processor sends the request to the first server by executing a load balancing algorithm.

14. The load balancer of claim 9, wherein the processor sends the request to the first server by sending the request to a server identified by the server identifier.

15. A computer readable medium having instructions stored thereon that, when executed by a processor, cause the processor, after receiving a request for data from a client computer, to:

send the request to a first server among a plurality of servers;

receive the data from the first server; and

add an identity of the first server to the data and forward the data to the client computer.

16. The computer readable medium of claim 15, said instructions further cause said processor to:

determine whether the request includes a server identifier.

17. The computer readable medium of claim 15, wherein the request is a Uniform Resource Locator (URL).

18. The computer readable medium of claim 15, wherein the data is a HyperText Markup Language (HTML) page.

19. The computer readable medium of claim 18, wherein the HTML page comprises at least one Uniform Resource Locator (URL), and the adding the identity of the first server comprises revising the at least one URL to include a server identifier that corresponds to the first server.

20. The computer readable medium of claim 16, wherein the sending the request to the first server comprises a load balancing algorithm.

21. The computer readable medium of claim 16, wherein the sending the request to the first server comprises sending the request to a server identified by the server identifier.

9. EVIDENCE APPENDIX

No further evidence has been submitted with this Appeal Brief.

10. RELATED PROCEEDINGS APPENDIX

Per Section 2 above, there are no related proceedings to the present Appeal.